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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,399	03/27/2001	Takayuki Iyama	450100-03044	2792
20999	7590	09/28/2006		
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			EXAMINER EDWARDS, PATRICK L	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/818,399	Applicant(s) IYAMA, TAKAYUKI	
	Examiner Patrick L. Edwards	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07-14-2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites that the blending coefficient, alpha, is set at zero when a pixel is zero, and sets alpha at unity when said specific picture element is other than zero. Claim 1, which is the parent claim, is in stark contrast to claim 4 because it requires that the alpha value be "proportional" to a value of a pixel.

In the "remarks" section, the applicant states that the following in reference to the application of the prior art reference MacInnis (USPN 6,573,905) to claim 1: "This method sets alpha to 0 when a comparison is positive, otherwise alpha is set to 1. Applicants submit that this method is not setting alpha to a value proportional to a value of a specific picture element component."

The above statement from the applicant is quite clear. The claim 4 limitation is inconsistent with claim 1.

Claim 2 is rejected because the phrase "recorded at said specified value" is unclear as currently recited. Specifically, it is unclear what "said specified value" the claim is referring to. Claim 1 recites that the "specified value" can take on 2 forms, and so it is unclear whether the "specified value" from claim 2 is supposed to be 0 or is supposed to be a value proportional to the pixel.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102/103 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Kurtze et al. (USPN 5,644,364), or in the alternative, is rejected under 35 USC 103(a) as being obvious in view of Kurtze.

Regarding claim 7:

Kurtze discloses a method for synthesizing two images comprising the following steps.

- setting a blending coefficient alpha to a specified value for each of a plurality of specific pixels of a first image [Kurtze col. 3 lines 41-49].
- wherein the specified value is proportional to a value of a specific pixel component of the plurality of specific pixels of the first image included in pixel components A of a first image when said value of the specific pixel is not zero [Kurtze col. 4 lines 3-27: In the situation where $\|Kc-U\|$ is between D1 and D2, we know that the value of the specific pixel is not zero. In this situation, the “value of [alpha] is determined according to this value.” Thus, we know that the alpha value is proportional to the value of U.]
- wherein said specified value is set to zero when said value of the specified pixel element is zero [Kurtze col. 4 lines 3-13: The reference describes setting parameters a key point Kc. If Kc is set to be a maximum value of 255, then the value of $\|Kc-U\|$ will always be greater than D2 when the pixel value is zero. When $\|Kc-U\|$ is greater than D2, then alpha is set to the minimum possible value of zero].
- performing an operation on each of the pixel components A of the first image, and each of a plurality of pixel components B of a second image in accordance with the specified value of the blending coefficients alpha (which has a value between 0 and 1) as follows: $(A * \alpha + B * (1 - \alpha))$ [Kurtze col. 3 lines 41-58]

Regarding claim 1:

Kurtze also discloses an apparatus for performing this method (see Kurtze Fig. 2). Further regarding claim 1, Kurtze discloses performing said operation on all the pixel element components A and the pixel components B of a pixel that has the specific pixel component representing the predetermined value by using said blending coefficient alpha set by said coefficient setting means [Kurtze col. 3 lines 41-58]

Regarding Dependent Claims:

Regarding claim 2, the 112(2) problems associated with this claim are noted above. Kurtze discloses that the transition is defined by upper and lower limits. Kurtze discloses that the alpha value assumes a value when a value is outside the specified range (Kurtze col. 4 lines 53-55)

Regarding claim 3, Kurtze discloses a luminance component Y.

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Regarding claim 4, the 112(2) problems associated with this claim are noted above. Furthermore, Kurtze does disclose the situation where the blending coefficient is set to be “the maximum value possible.”

Regarding claim 5, The limitations of this claim have already been addressed with respect to claim 1. Indeed, it does not appear that claim 5 does much—if any—to further limit claim 1.

Regarding claim 8, Kurtze discloses that the pixel component is a color component.

Regarding claim 9, Kurtze discloses that the relationship is set by a user (Kurtze col. 4 line 5).

6. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtze in view of well known prior art.

Regarding claim 6, Kurtze discloses the YUV format, but it would have been obvious to use the ITU-R601 format instead. The ITU-R601 format is well known in the field (official notice) and it would have been obvious to use the claimed invention in such a manner.

Regarding claim 9, Kurtze discloses that the user selects the relationship between the pixel components and the specified value. However, it would have been obvious to have this preset. Such a modification would have allowed for an additional embodiment in which a user’s input was not required.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Redmann et al. (USPN 5,696,892) – discloses a method and apparatus for chrominance and luminance keying
- Mishima (USPN 5,355,174) – discloses a soft edge chroma-key generation system

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick L. Edwards whose telephone number is (571) 272-7390. The examiner can normally be reached on 8:30am - 5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patrick L. Edwards

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